Energy resolution

Virginia Bailey, Vera Loggins, Anne Sickles

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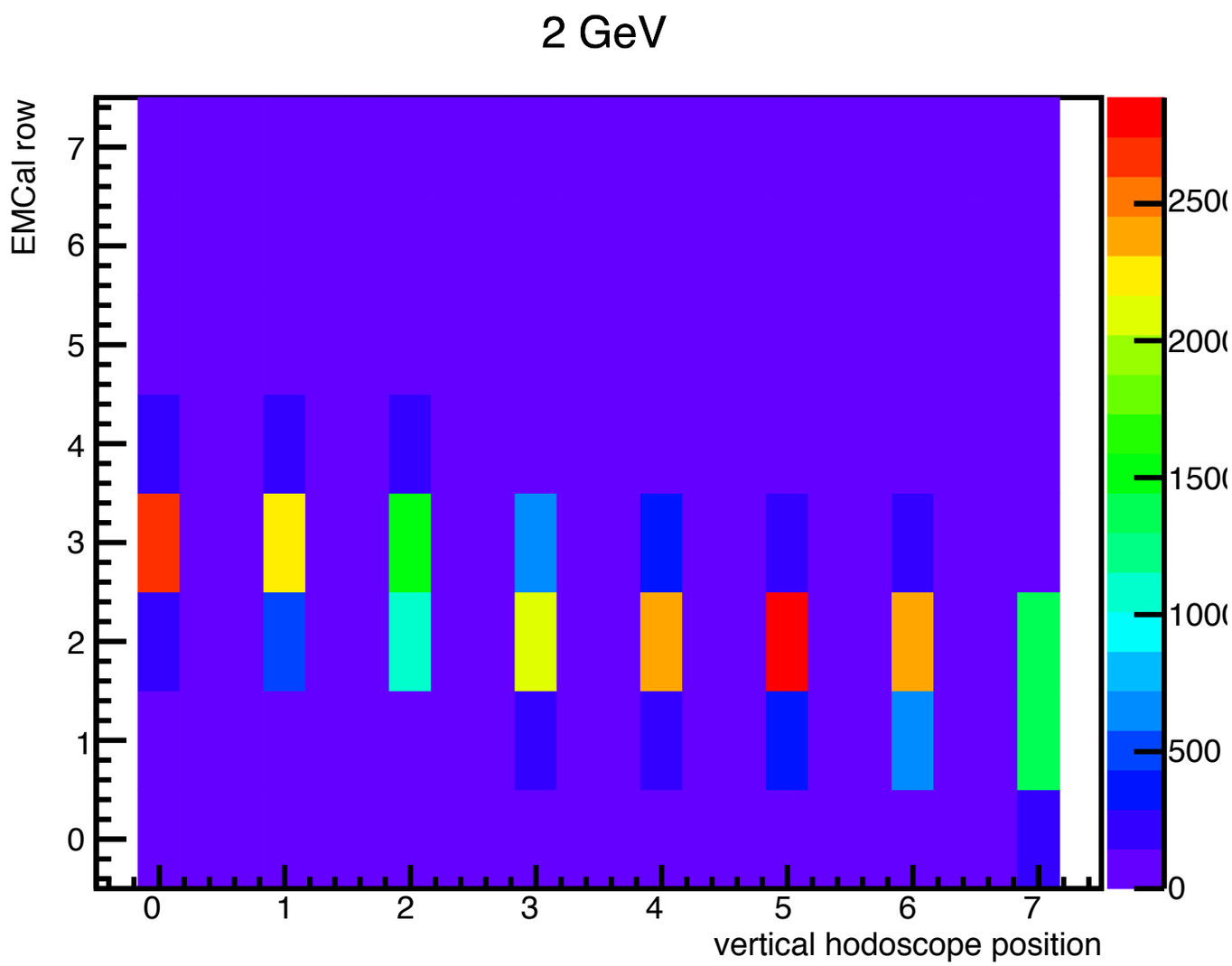
data

2 GeV	2692
4 GeV	2695
6 GeV	2698
8 GeV	2703
12 GeV	2719
16 GeV	2723 *
24 GeV	2727 *
28 GeV	2730 *

* runs w/ EMCal gains lowered

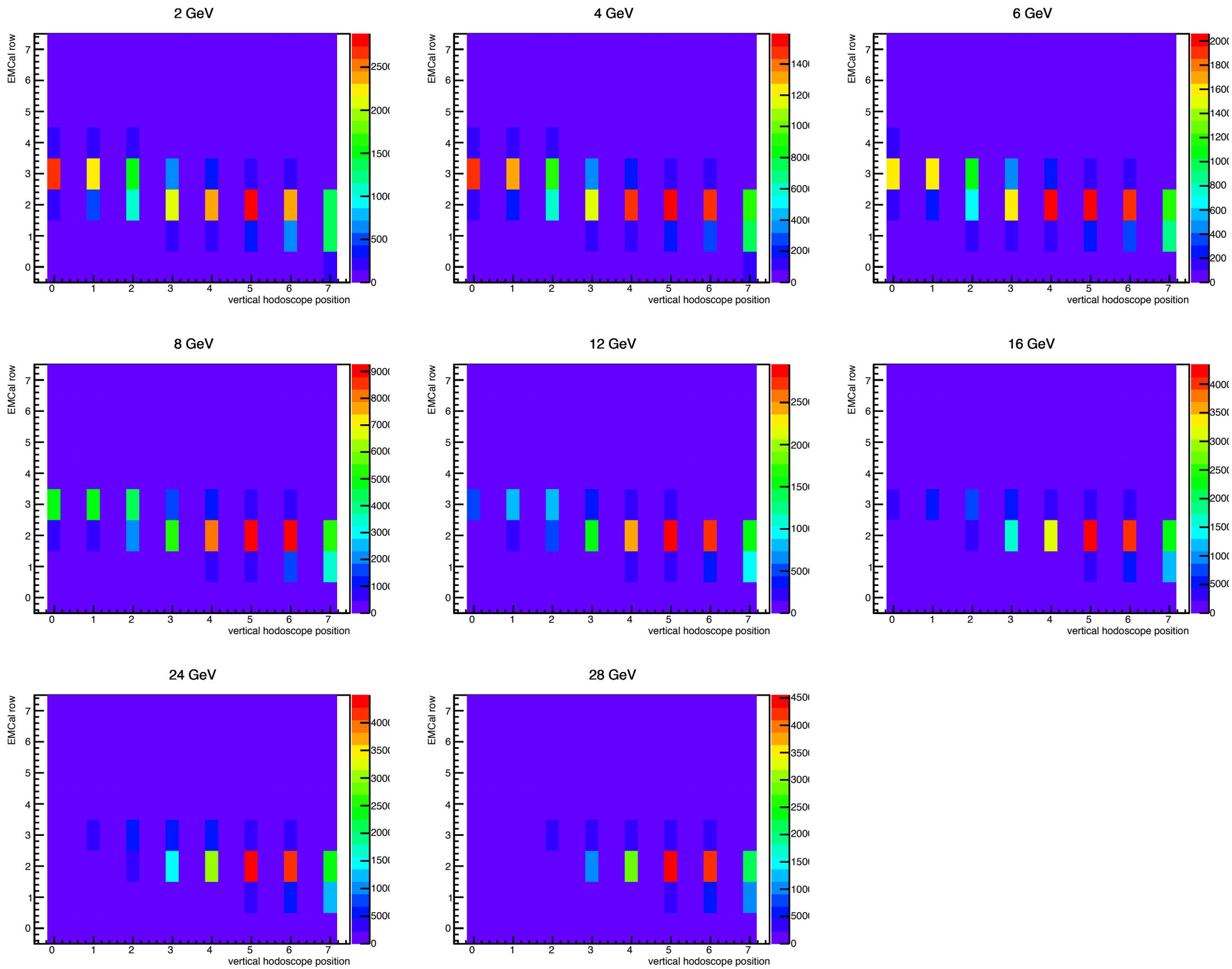
- runs from EMCal near the HCal
- used these data: /gpfs/mnt/gpfs02/sphenix/data/data01/t1044-2016a/production/Production_0428_MIP_set2_Cosmic
- https://wiki.bnl.gov/sPHENIX/index.php/T-1044#T-1044.2Fjoint_data_good_run_note

hodoscope (vertical)

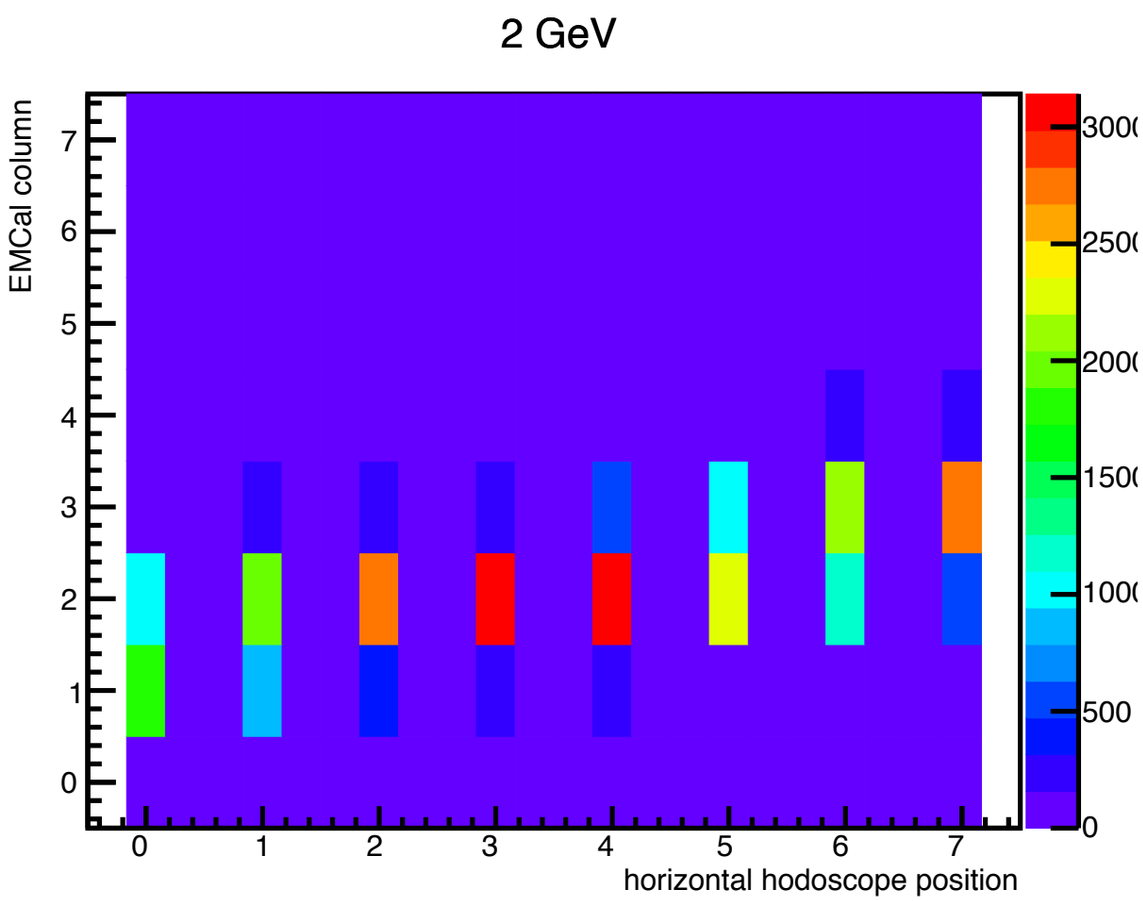


EMCal row weighted by energy as a function of vertical hodoscope position (H# > 30 cut applied)

hodoscope (vertical)

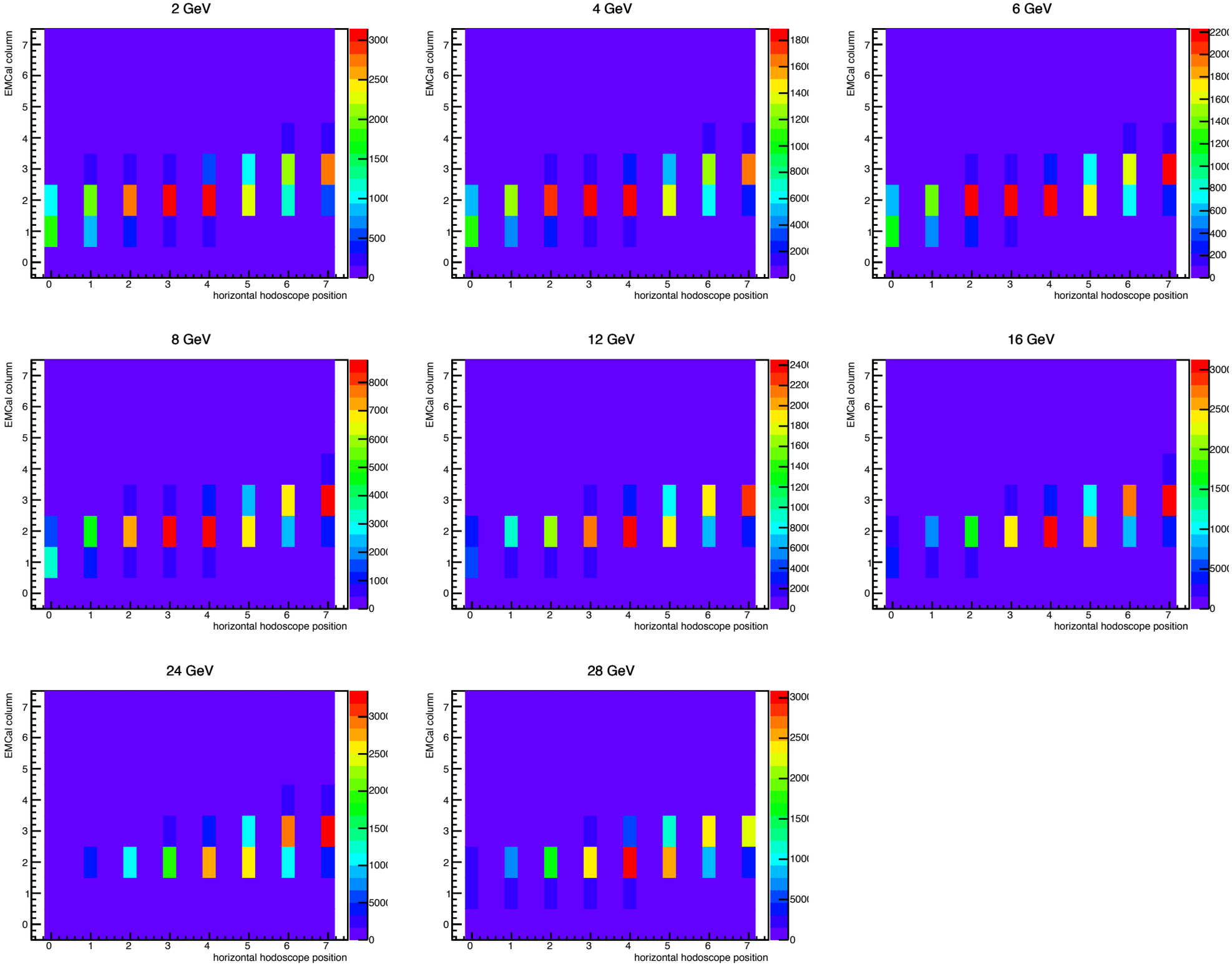


hodoscope (horizontal)



EMCal column weighted by energy as a function of horizontal hodoscope position (H# > 30 cut applied)

hodoscope (horizontal)



cuts

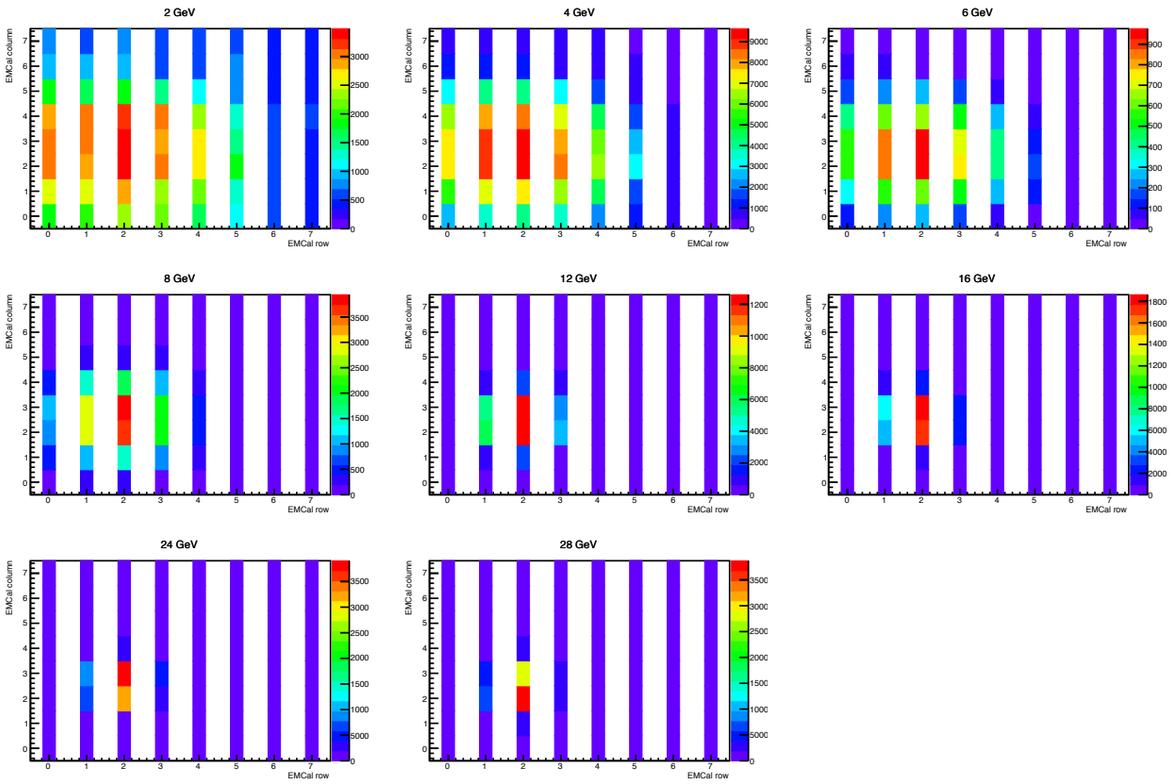
hodoscope

energy	horizontal	vertical
2 GeV	3,4	4,5,6
4 GeV	3	5
6 GeV	2,3,4	4,5,6
8 GeV	3,4	5,6
12 GeV	4	5,6
16	4	5,6
24	4	5,6
28	4	5,6

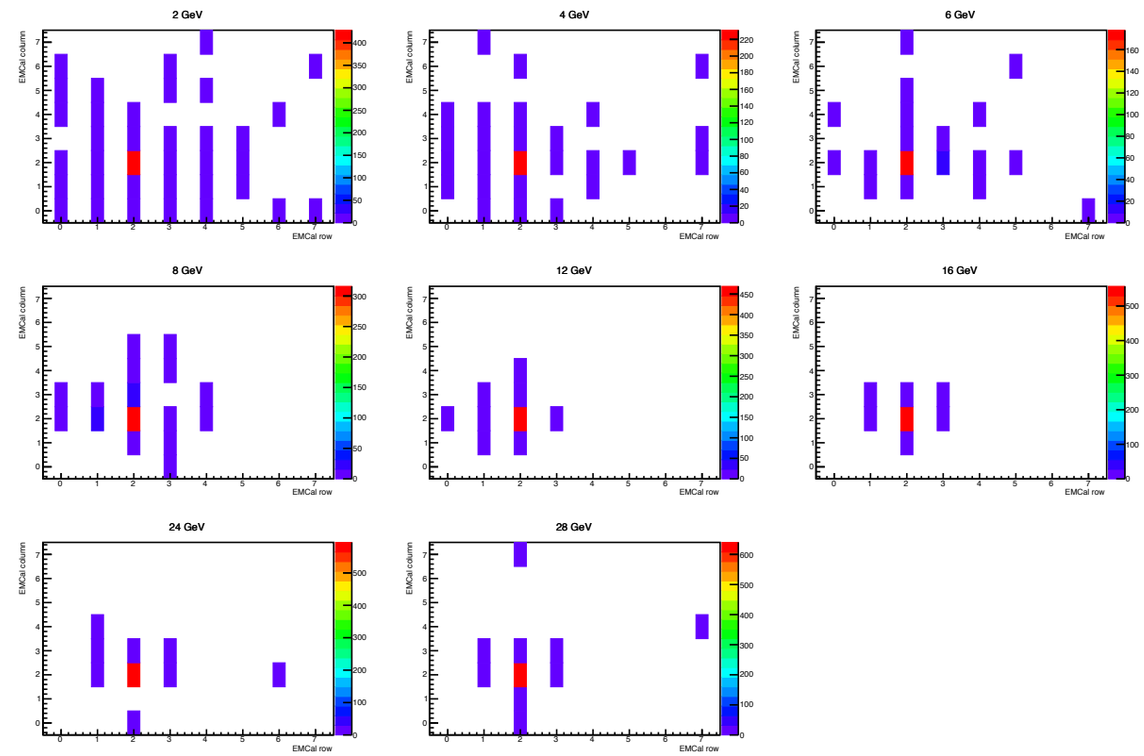
- veto cuts from wiki: require all veto counters to be less than 15

tower with maximum energy after

max tower row/column no cuts

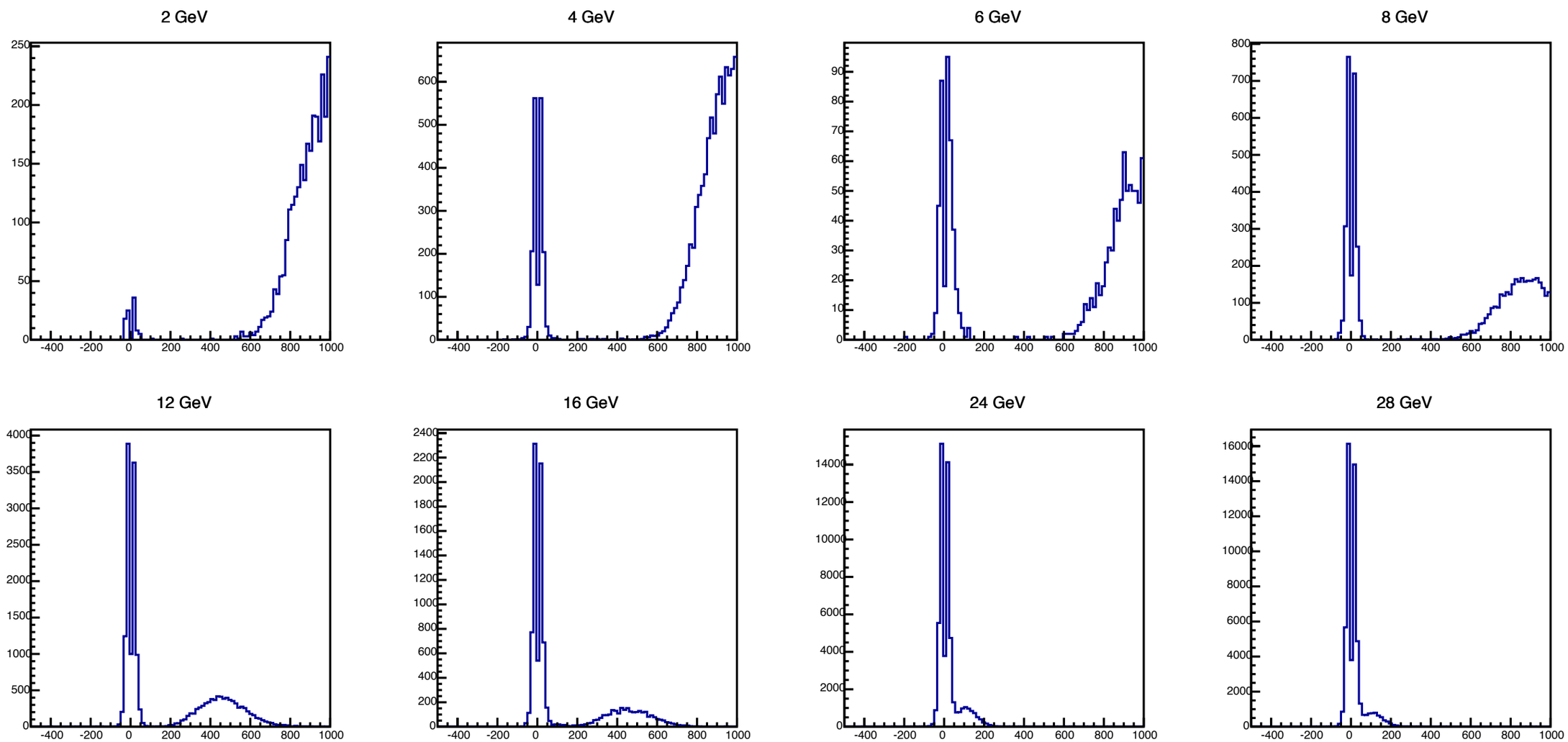


max tower row/column after hodoscope cuts



Cherenkov

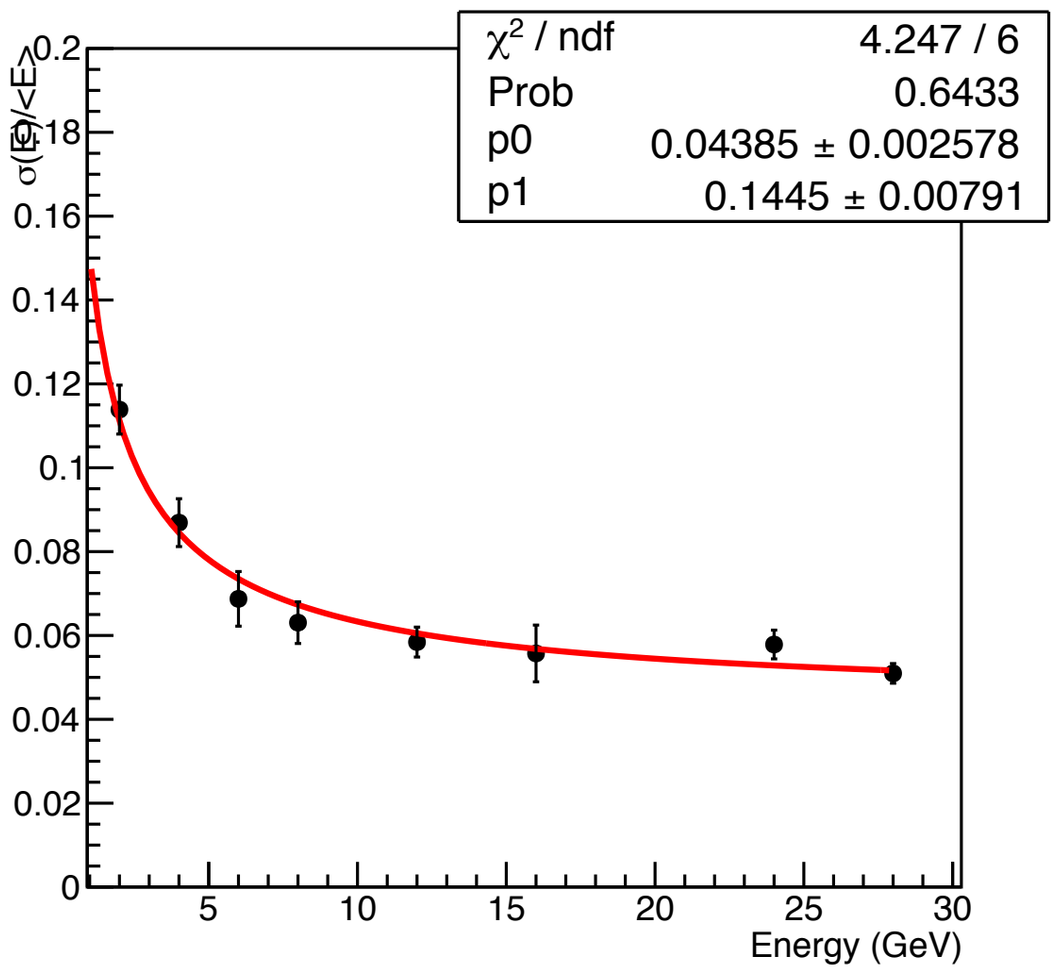
C2 inner + C2 outer (using earlier copy)

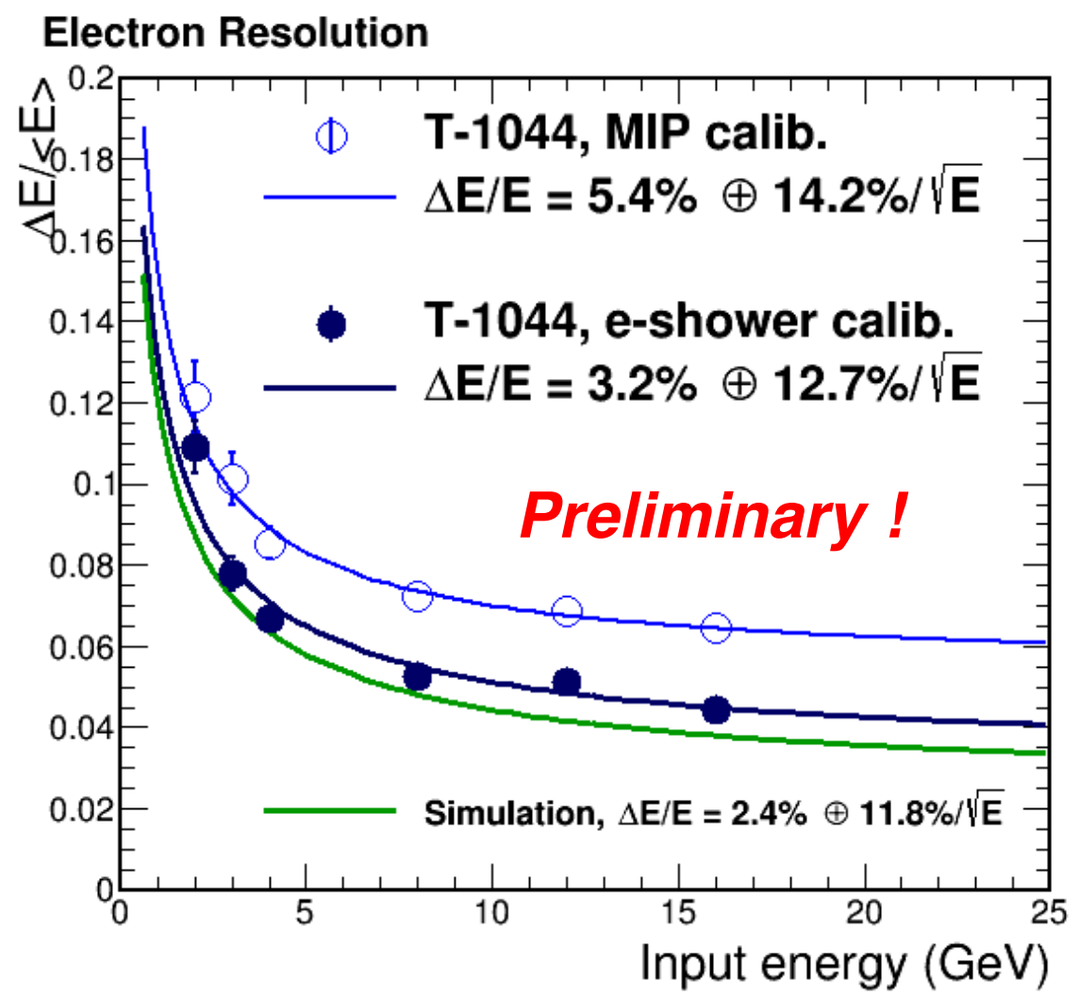


- require C2 inner + C2 outer > 50
  - could use optimization to reduce leakage from hadron peak

resolution

this analysis





very similar resolution to preliminary analysis
want to look at high statistics energy scan next
other comments?